

216369US2DIV

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: :  
Satoshi HIRANO : EXAMINER:  
SERIAL NO: New Application :  
FILED: Herewith : GROUP ART UNIT:  
FOR: A HEAT STORAGE DEVICE

PRELIMINARY AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

Prior to an examination on the merits, please amend the above-identified patent application as follows:

IN THE CLAIMS

A clean copy of the claims incorporating any amendment is shown below.

Please cancel Claims 1, 2 and 5 without prejudice, and amend Claims 6-9 as follows:.

1. (Canceled)
2. (Canceled)
5. (Canceled)
6. (Amended) A heat storage device according to claims 3 or 4, wherein:

as suppressing means, a property of increasing viscosity by the application of voltage is provided for the heat storage material or the heat transfer medium in the outer portion in the heat storage tank; and

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means for applying power between a pair of electrodes is further provided, as suppressing means, on opposite sides of the outer portion in the heat storage tank so as to sandwich said outer portion.

7. (Amended) A heat storage device according to claims 3 or 4, wherein:

as suppressing means, a property of increasing viscosity by the application of a magnetic force is provided for the heat storage material or the heat transfer medium in the outer portion in the heat storage tank; and

a magnet for exerting the magnetic force is further provided, as suppressing means, in the outer portion in the heat storage tank.

8. (Amended) A heat storage device according to claims 3 or 4, further comprising:

a barrier, as suppressing means, for hindering the natural convection of the heat storage material or the heat transfer medium, said barrier being disposed in the outer portion in the heat storage tank.

9. (Amended) A heat storage device according to claims 3 or 4, further comprising:

means for promoting a heat transfer, said means being disposed between the central portion and the outer portion in the heat storage tank.

#### **REMARKS**

Favorable consideration of this application as presently amended is respectfully requested.

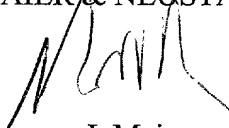
Claims 3, 4 and 6-9 are presently pending in this application, Claims 1, 2 and 5 having been canceled and Claims 6-9 having been amended by way of this Preliminary Amendment.

Claims 6-9 have been amended to depend from Claims 3 or 4 since Claims 1 and 2 have been canceled.

Examination on the merits of Claims 3, 4 and 6-9 and an early and favorable action is respectfully requested.

Respectfully submitted,

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**Marked-Up Copy**

Serial No: Mod IV

Amendment Filed on:

11/11/11

**IN THE CLAIMS**

Please cancel Claims 1, 2 and 5 without prejudice, and amend Claims 6-9 as follows:.

--1. (Canceled)

2. (Canceled)

5. (Canceled)

6. (Amended) A heat storage device [as claimed in any one of claims 1 through 4]

according to claims 3 or 4, wherein:

as suppressing means, a property of increasing viscosity by the application of voltage is provided for the heat storage material or the heat transfer medium in the outer portion in the heat storage tank; and

means for applying power between a pair of electrodes is further provided, as suppressing means, on opposite sides of the outer portion in the heat storage tank so as to sandwich said outer portion.

7. (Amended) A heat storage device [as claimed in any one of claims 1 through 4]

according to claims 3 or 4, wherein:

as suppressing means, a property of increasing viscosity by the application of a magnetic force is provided for the heat storage material or the heat transfer medium in the outer portion in the heat storage tank; and

a magnet for exerting the magnetic force is further provided, as suppressing means, in the outer portion in the heat storage tank.

8. (Amended) A heat storage device [as claimed in any one of claims 1 through 4] according to claims 3 or 4, further comprising:

a barrier, as suppressing means, for hindering the natural convection of the heat storage material or the heat transfer medium, said barrier being disposed in the outer portion in the heat storage tank.

9. (Amended) A heat storage device [as claimed in any one of claims 1 through 4] according to claims 3 or 4, further comprising:

means for promoting a heat transfer, said means being disposed between the central portion and the outer portion in the heat storage tank.--